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[104]
[184]

/81 cont./
mention such seedless fruits (382).

382. Zerries, moreover, thinks it is possible that among the Waiká the pupunha fruit was the predecessor of the mealy banana (Zerries, 1956b, p. 148).

• 244 The cultivation of tubers, which is always done separately from the banana plantings, has hitherto been practiced on only a very modest scale. It includes the cultivation of taioba or taro (Colocasia antiquorum and Xanthosoma violaceum Schott.) -- ohíná -- (383), cará or yams (Dioscorea

383. Among the Waiká the corresponding name is "ohina" (Zerries, 1956b p. 153).

sp.) -- cabiromá -- sweet manioc, known in Brazil as macaxeira aipim or mandioca doce (Manihot palmata Muell. Arg.) -- mihitarima -- bitter manioc (Manihot utilissima Pohl) -- kuamirimakóke --, and sweet potatoes (Ipomoea batatas Lam.) -- hikarí -- (384). Worth mentioning

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384. The Waiká call the sweet potato "higali" (Zerries, 1956b, p. 153).

also are the sugar cane plantings (sugar cane (Saccharum officinale) -- bukú -- (385)) and the absence of maize (386).

385. The Waiká have the same word for sugar cane (Zerries, 1956b, p. 153).

[184]

386. Zerries, to be sure, found evidence of its cultivation by the Waiká. But, he adds, maize "is little more than a rare delicacy" (Zerries, 1956b, p. 153).

6: Vinci T-5 (1950) 1959 SQ18 Yanoama SQ18
Sanema

one gave a thought to these peaks that towered higher with every bend of the river. Then one afternoon, after a storm, they dropped out of sight, and we realized that we had entered a different region. Manuera pointed leftwards, to the mouth of a small river whose water was yellow.

'Pulipuli. Nuna,' he told us—Nuna being the Shirian and Makiritari pronunciation of 'Luna'. 'There is my home, the home of the Shirians.'

We swung into the mouth of the Luna and tied up under a tall clay bank among a few ill-made canoes—if you could call them canoes, for they looked more like rotten tree-trunks swept on to the little landing-beach in the course of some sudden flood.

Our arrival in the dirty waters of the Luna was a signal for swift and secret flight on the part of the population. Some Shirian youngsters had been hunting a capybara which the throb of our motor scared off. The boys, no less scared than the animal, ran to hide in the nearby huts, spreading the wondrous news that men had come with beards and an engine.

The Moon Valley people occupy a fair-sized wedge of territory in the forests between the Lower Canaracuni and the Caura. Their little huts are sorry imitations of the big Makiritari erections, and they have burned out big patches of forest for the sowing of manioc and bananas. All this is the work of the last twenty years. Not till then did the tribes of the Shirian borderland grow weary of their nomad life, their wars and their plundering expeditions, and decide to set up house and home. Pulipuli became a sort of agricultural centre for the groups living on the Upper Caura, or on the Merehuari and its tributary streams as far as the great mountain saddle between Uana-Coco, Canaua, and Uagna. These people here were therefore the most advanced of the Shirians, not only in a geographical sense but also in their culture. Their numbers were continually increasing because they had a magnetic attraction for neighbouring tribes who were still mere primitive forest hunters.

Manuera had married a Pulipuli girl and then joined her tribe. 'Let us build a fine house,' he had told her, 'and I'll come and live with you. I'll bring good manioc and banana roots. We'll plant a big patch, in the proper way we Makiritaris know, and there'll be no lack of food. You Shirians are for ever as hungry as beasts and I can't stomach the worms you eat.'

There was great puzzlement among the old Shirians—those whose hairless heads showed the marks of so many battles and so many robbing and plundering expeditions all through the valley and the Merehuari cordillera as far as the

11: Chagnon E-5 (1964-1968) 1968 SQ18 Yanoama SQ18

a newly planted sucker, the more quickly it will bear fruit. Hence, if the Yąnomamö wish to establish a garden that will produce a crop in the shortest period of time, they must plant large cuttings. These can weigh up to 10 pounds each, and transportation of the cuttings becomes a tremendous task.

As will be made clear later, most long moves are usually stimulated by warfare, and the group is under some pressure to establish a new garden as quickly as possible. The Yąnomamö can speed up their schedule of abandoning an area by taking temporary refuge in the village of an ally, by planting crops other than plantains that mature quickly and produce high yields, or by anticipating a serious war and getting an early start on their new garden. When Kąobawä's group was forced to abandon one of its locations because of a war, the group took refuge with an ally and established its new garden near the ally's village. One of the consequences of these factors is that newly established gardens produce their crops in cycles so that there will be periods of plenty interrupted by periods of hunger. After a few years, the garden will mature and produce constantly. The periods of hunger are eased by planting rapidly developing crops such as maize and by working constantly at transplanting the secondary plantain shoots as they appear. Thus, gardening activities vary largely with the relative maturity of the garden and the length of time the people have been living at that site. Once the plantains are producing constantly, other crops are not cultivated as intensively as before. But whatever the Yąnomamö are eating in a given village, they are striving to get their gardens to produce a constant supply of plantains. The fact that a given village may be relying very heavily on maize at some point in time may reflect no more than the fact that the garden is relatively new and the plantains have not yet begun producing constantly.

After a site has been occupied a few years, gardening activities take on a more regular pattern. The "rectum" (*bei kä bosi*) of the garden is gradually abandoned, and a new "nose" (*bei kä hushibö*) is added by clearing adjacent land and transplanting crops. Thus, a garden has a direction—it moves, little by little. Sometimes there will be as many as three or four discrete gardens around a village, all of them producing more or less continuously. The older ones are gradually abandoned because it is simply easier to clear new land than to attempt to weed the thorny underbrush out of the old site. If you have ever attempted to clear prickly brush without wearing protective clothing, you should immediately see the wisdom of the Yąnomamö choice.

In an established garden site, labor follows a more regular pattern. The dry season is usually the time for feasting, visiting, trading, and warfare. Gardening activities are at a minimum at this time of year, but the ambitious will try to work a few hours each day at weeding, transplanting, and burning brush. Most of the heavy labor of felling large trees is restricted to the wet season, when it is cloudy and generally cooler, and the demands of feasting and dancing do not interfere with the work. Still, practical considerations are more important than a fixed schedule of work, and if the gardens are producing insufficient quantities of food, the Yąnomamö will expand their gardens at any time of the year.

GARDEN PRODUCTS Each man's garden contains three or four varieties of both plantains and bananas. The larger portion of the cultivated land will contain plantains, as they produce a higher yield than bananas. The garden will also have a sizeable patch of sweet manioc, a root crop that is boiled or refined into a rough flour by grinding it on a rock and then converting the flour into thick, round cakes of baked cassava bread.

244 [179] [252] [799] Many of the Yąnomamö villages have recently obtained bitter manioc, a poisonous variety that must be leached of its toxic ingredient before it can be eaten. This variety is grown in large quantities by the Carib-speaking Makiritare Indians–and by rural Venezuelans–and most of it has been introduced to the Yąnomamö recently by missionaries. Where the Yąnomamö are in direct contact with the Makiritare, they have, of course, adopted the crop without the intervention of the missionaries.

Next in importance are three other root crops: taro, sweet potatoes, and mapuey. [252] All of these resemble potatoes; they are usually boiled, but occasionally they are roasted directly over the coals.

245 [423] The Yąnomamö also cultivate a species of palm tree that produces a large crop of fruit each February and a much smaller crop in June. Each tree is owned by the individual who planted it, and his rights to the fruit continue even after the garden has been abandoned. It takes about six or seven years for a newly planted tree to produce its first crop, so the Yąnomamö are quite reluctant to move very far away from sites where they possess producing groves of these trees. When they do move, they return each year to collect the peach-palm fruit. They try, as well, to move to an abandoned garden that still has producing peach palms. If thieves have been raiding the unguarded crop, the Yąnomamö may cut the trees down, keeping the wood to make bows. They would sooner destroy an item of personal property than permit others to exploit it without permission.

243 [262] Maize is probably next in importance, but in a special sense. It appears to be cultivated as an emergency crop because its seeds are light and easily transported. A group that must move its garden a long distance can carry large quantities of maize seed and produce a substantial crop in a relatively short period of time. Maize does not, however, under normal circumstances, figure prominently in the daily diet of the Yąnomamö.

Cane for arrow manufacturing is also grown. The mature plant consists of a long, slender, pithy cane that has no joints or branches and is ideally suited for arrow shafts. The Yąnomamö use the cane just as they harvest it. Their arrows are over 6 feet long. Wing feathers from the larger species of wild turkey are used to fletch the arrow. On [237] each side of the shaft, one feather is tied with finely spun cotton fibers, being attached in such a way that the arrow will spin when it is released; its accuracy is thus improved in the way a bullet's accuracy is improved by rifling in a gun barrel. A nock is carved [322] from wood with an agouti-tooth knife; it looks very much like a golf-ball tee when finished, except that it is grooved at the large end where it will be fitted to the bowstring. [314] The nock is inserted in the narrow end of the cane and held fast with pitch adhesive and [284] a tight wrapping of fine cotton thread. The large end of the cane is not altered if it is to take a curare tip, since it tapers to a fine point and, therefore, blends into the thin curare point. If the point to be mounted is of the lanceolate type, the tip of the cane is cut off at its maximum diameter, wrapped with heavy cord, and the point jammed into the cane pith with considerable force. The fiber wrapping prevents the cane from splitting while the point is being mounted. The finished product is a very handsome [531] piece of work, and the Yąnomamö are proud of their arrows. They decorate the bamboo points by painting them red and adding black designs, and they attach a few colorful [422] [431] feathers to the fletched end. A seasoned arrow is a prized possession, in high demand in the trading network.